### (19) World Intellectual Property Organization International Bureau



### 

## (43) International Publication Date 17 July 2003 (17.07.2003)

#### **PCT**

# (10) International Publication Number WO 03/057604 A1

- (51) International Patent Classification7: B65G 65/42, C10B 33/00
- (21) International Application Number: PCT/EP03/00103
- (22) International Filing Date: 6 January 2003 (06.01.2003)
- (25) Filing Language:

English

(26) Publication Language:

English

- (30) Priority Data: MI2002 A 000030 10 January 2002 (10.01.2002) IT
- (71) Applicant (for all designated States except US): MAGA-LDI RICERCHE E BREVETTI S.R.L. [IT/IT]; Via Irno, 219/bis, I-84135 Salerno (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MAGALDI, Mario [IT/IT]; Viale del Bosco, 22, I-84100 Salerno (IT). CATTANEO, Giancarlo [IT/IT]; Via Irno 219/bis, I-84135 Salerno (IT).
- (74) Agent: RICCARDI, Sergio; Via M. Melloni, 32, I-20129 Milano (IT).

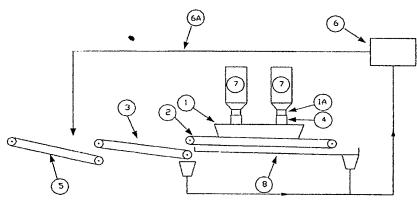
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EXTRACTION, DRAINAGE AND TRANSPORT OF PETROLEUM COKE



(57) Abstract: A system for the extraction, drainage and wet transport of the petroleum coke produced by the coking chambers is described. Such system provides the collection, drainage and transport of the petroleum coke coming from the coking chambers during the cutting phase all the way to the boilers' feeding. The material extracted from the coking chamber (7) through the use of high pressure water is conveyed on the pre-crusher (4) through a connection system (1a). Between the pre-crusher (4) and the draining belt conveyor (2) there is a drainage and containment hopper (1) which has the dual function of accumulation and possible drainage thanks to some holes that serve as weir. The material which falls from above in different sizes, after having being reduced in size by the pre-crusher (4), gets transported by the belt (2) that carries out a first drainage phase through the holes made on the same belt. The coke is collected on the belt while the drained water is collected in a lower collection channel (8). Downstream of the belt (2) there is a further draining belt (3) which sees to finish the drainage phase before transporting the coke towards the boiler's feeding bunkers. Subsequently, downstream of the draining belt (3) there is a rubber belt conveyor (5), which directly provides for storing the material. At last, the water/coke mixture collected into the channel (8) gets sent into a filtering equipment (6) and the filtered material (6a) is recycled on one of the draining belts.



WO 03/057604 A